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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *02 June 2009*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-50* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-50* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *5/14/09*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

This Office action is in response to Applicant's communication filed June 2, 2009 in response to the Office action dated February 3, 2009. Claims 1-5, 9-26, 34-37, 39-45, and 47-50 have been amended. Claims 1-50 are pending in this application.

ACKNOWLEDGMENT OF REFERENCES CITED BY APPLICANT

Information Disclosure Statement

1.   As required by MPEP § 609(c), Applicant's submission of the Information Disclosure Statement (IDS) dated May 14, 2009 is acknowledged by Examiner and the cited reference has been considered in the examination of the claims now pending. As required by MPEP § 609 c(2), a copy of the PTOL-1449 initialed and dated by Examiner is attached to the instant Office action.

REJECTIONS NOT BASED ON PRIOR ART

Claim Rejections - 35 USC § 101

2.   In view of Applicant's amendment, the 101 rejection of **claims 1-50** is withdrawn.

Claim Rejections - 35 USC § 112

3.   In view of Applicant's amendment, the 112, second paragraph rejection of **claims 14, 15, 39, and 40** is withdrawn.

REJECTIONS BASED ON PRIOR ART

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1-4, 9-15, 17-21, 26-29, 34-36, 39, 40, and 42-46 are rejected under 35**

U.S.C. 103(a) as being unpatentable over Miller et al. (U.S. Patent 5,920,701)

(hereinafter "Miller") in view of Jaeger (U.S. Patent 6,345,028) and Ma et al. (U.S.

Patent 5,926,649) (hereinafter "Ma").

6.   **As per claims 1 and 26**, but more specifically claim 1, Miller discloses a method

comprising:

publishing a schedule of content transmission, the schedule identifying the

content by one or more times (col. 3, lines 1-2; col. 13, lines 4-9; Fig. 3, element 114);

transmitting the at least one content to a temporal data storage system in accord

with the published schedule (col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116;

col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46). *It should be noted*

that the "tape drives" within the "replicated servers" are analogous to a "temporal data

storage system."

Miller does not disclose reading at least one content from at least one hardware

spatial data storage system in a fashion independent of the schedule of content

transmission.

Jaeger discloses reading at least one content from at least one hardware spatial
data storage system in a fashion independent of the schedule of content transmission
(col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that the*
"data signals/tracks" are analogous to the "at least one content" and that the "disk drive"
is analogous to a "hardware spatial data storage system."

Miller and Jaeger are analogous art because they are from the same field of
endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary
skill in the art to implement Jaeger's reordering of data signals within Miller's content
source's hard disk drives because all the claimed elements were known in the prior art
and one skilled in the art could have combined the elements as claimed by known
methods with no change in their respective functions, and the combination would have
yielded the predictable results of maximizing the number of data signals that can be
transmitted from a disk drive by minimizing seek time of the disk drive head.

The combination of Miller/Jaeger does not disclose the schedule being defined in
response to an order in which the at least one content is spatially resident upon at least
one hardware spatial data storage system.

Ma discloses the schedule being defined in response to an order in which the at
least one content is spatially resident upon at least one hardware spatial data storage
system (col. 9, lines 10-22; col. 10, lines 43-60; Figs. 4 and 5). *It should be noted that*
"disk-based storage system 14" is equivalent to the "hardware spatial data storage
system". It should also be noted that the schedules in Fig. 5 are defined in response to

the location of data in the disk-based storage system. The location of data in the disk-

based storage system dictates the order of data in the disk-based storage system

Therefore, it follows that the schedules in Fig. 5 are also defined in response to the

order of the data in the disk-based storage system.

The combination of Miller/Jaeger and Ma are analogous art because they are

from the same field of endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary

skill in the art to apply Ma's scheduling technique to Miller/Jaeger's distribution

schedule. The motivation for doing so would have been to provide sequential-like

parallel retrieval suitable for supporting real-time multimedia data distribution for large

numbers of clients.

7.   **As per claims 2 and 27**, the combination of Miller/Jaeger/Ma discloses said

publishing a schedule of content transmission, the schedule being defined in response

to an order in which the at least one content is spatially resident upon at least one

hardware spatial data storage system, the schedule identifying the content by one or

more times further comprises:

printing the schedule of content transmission on a medium (Miller, col. 3, lines 1-

2 and 63-67; col. 13, lines 4-9; Fig. 3, element 114); *It should be noted that act of*

"transmitting" the "distribution schedule" across the "communication links" anticipates

the act of "printing the schedule of content transmission on a medium" because the

distribution schedule is reproduced ("printed") on the communication link ("medium").

and distributing the medium to one or more sites associated with one or more

associated data switch controllers (Miller, col. 3, lines 1-2; col. 13, lines 4-9; Fig. 3,

element 114; col. 5, lines 39-43; Fig. 1, elements 16, 18, 20; Fig. 2, element 34). *It

should be noted that the "replicated servers" are equivalent to the "one or more sites"

and that the "I/O controllers" are equivalent to the "data switch controllers."*

8.   **As per claims 3 and 28**, the combination of Miller/Jaeger/Ma discloses said

publishing a schedule of content transmission, the schedule being defined in response

to an order in which the at least one content is spatially resident upon at least one

hardware spatial data storage system, the schedule identifying the content by one or

more times further comprises:

transmitting the schedule of content transmission over a data communications

link (Miller, col. 3, lines 1-2 and 63-67; col. 13, lines 4-9; Fig. 3, element 114).

9.   **As per claims 4 and 29**, the combination of Miller/Jaeger/Ma discloses said

publishing a schedule of content transmission, the schedule being defined in response

to an order in which the at least one content is spatially resident upon at least one

hardware spatial data storage system, the schedule identifying the content by one or

more times further comprises:

transmitting the schedule of content transmission over a sideband data

communications link (Miller, col. 3, lines 1-2 and 63-67; col. 13, lines 4-9; Fig. 3,

element 114).

10.   **As per claims 9 and 34**, the combination of Miller/Jaeger/Ma discloses said reading at least one content from the at least one hardware spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one hard disk drive (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11).

11.   **As per claims 10 and 35**, the combination of Miller/Jaeger/Ma discloses said reading the at least one content from at least one hard disk drive further comprises:

reading tracks of the at least one hard disk drive in a defined sequence including at least a sequence starting with an outer track and ending with an inner track (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11).

12.   **As per claims 11 and 36**, the combination of Miller/Jaeger/Ma discloses said reading the at least one content from at least one hard disk drive further comprises:

reading tracks of the at least one hard disk drive in a defined sequence including at least a sequence starting with an inner track and ending with an outer track (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that depending on the manufacturer, "track 1" could be the innermost track and "track N" could be the outermost track, and vice versa.*

13.   **As per claims 12 and 37**, the combination of Miller/Jaeger/Ma discloses said reading the at least one content from at least one hard disk drive further comprises:

reading the at least one content from a first disk drive (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11)

and reading a copy of the at least one content from a second disk drive (Jaeger, col. 6, lines 1-20 and 49-54; Fig. 1, element 11').

14.   **As per claim 13**, the combination of Miller/Jaeger/Ma discloses said reading the at least one content from at least one hard disk drive further comprises:

determining a first time interval during which a first segment of a first content will be read from a first disk drive (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11)

determining a second time interval during which a second segment of the first content will be read from second disk drive (Jaeger, col. 6, lines 1-20 and 49-54; Fig. 1, element 11');

and defining the schedule in response to the first time interval and second time interval (Ma, col. 10, lines 43-60; Fig. and 5).

15.   **As per claims 14 and 39**, the combination of Miller/Jaeger/Ma discloses said reading at least one content from the at least one hardware spatial data storage system in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content of a hard disk drive such that an aggregate distance traversed by a hard disk head is minimized (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should be noted that reading data tracks from the disk drive starting with track 1 and ending with track N will "substantially minimize" the aggregate distance traversed by a disk drive head.*

16.   **As per claims 15 and 40**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from the at least one hardware spatial data storage system

in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content of a spatial address device such that an

aggregate time to read the at least one content of the spatial address device is

minimized (Jaeger, col. 5, lines 49-52; col. 2, lines 41-45; Fig. 1, element 11). *It should*

be noted that reading data tracks from the disk drive starting with track 1 and ending

with track N will "substantially minimize" the aggregate time to read the data tracks of

the disk drive.

17.   **As per claims 17 and 42**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from the at least one hardware spatial data storage system

in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one file address storage system

(Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

18.   **As per claims 18 and 43**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from the at least one hardware spatial data storage system

in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one disk address storage system

(Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

19.   **As per claims 19 and 44**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from the at least one hardware spatial data storage system

in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one file address storage system

(Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

20.   **As per claims 20 and 45**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from the at least one hardware spatial data storage system

in a fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one static memory address storage

system (Jaeger, col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

21.   **As per claims 21 and 46**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from at least one hardware spatial data storage system in a

fashion independent of the schedule of content transmission further comprises:

reading the at least one content from at least one object address storage system

(col. 5, lines 12-20 and 49-52; col. 2, lines 41-45; Fig. 1, element 11).

22.   **As per claim 38**, the combination of Miller/Jaeger/Ma discloses said means for

reading the at least one content from at least one hard disk drive further comprises:

means for reading a first content from a first disk drive (Jaeger, col. 5, lines 49-

52; col. 2, lines 41-45; Fig. 1, element 11)

and means for reading a second content a second disk drive (Jaeger, col. 6, lines

1-20 and 49-54; Fig. 1, element 11').

23.   **Claims 5-8 and 30-33 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Miller in view of Jaeger and Ma as applied to claim 1 above,

and further in view of Eyer et al. (U.S. Patent 5,801,753) (hereinafter "Eyer").

24.   **As per claims 5 and 30**, the combination of Miller/Jaeger/Ma discloses a

temporal data storage system (Miller, col. 5, lines 39-48; Fig. 1, elements 16, 18, 20;

Fig. 2, element 46).

The combination of Miller/Jaeger/Ma does not disclose transmitting the schedule

of content transmission to the temporal data storage system.

Eyer discloses transmitting the schedule of content transmission to a memory

(col. 5, line 62 – col. 6, line 23).

The combination of Miller/Jaeger/Ma and Eyer are analogous art because they

are from the same field of endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary

skill in the art to provide Eyer's IPG stream to Miller/Jaeger/Ma's tape drives because all

the claimed elements were known in the prior art and one skilled in the art could have

combined the elements as claimed by known methods with no change in their

respective functions, and the combination would have yielded the predictable results of

an interactive guide that responds to user inquiries on an instantaneous or near

instantaneous basis.

25.   **As per claims 6 and 31**, the combination of Miller/Jaeger/Ma/Eyer discloses

said transmitting the schedule of content transmission to the temporal data storage

system further comprises:

interleaving the schedule of content with other data (Eyer, col. 15, lines 55-61).

26.   **As per claims 7 and 32**, the combination of Miller/Jaeger/Ma/Eyer discloses

said interleaving the schedule of content with other data further comprises:

transmitting the schedule relative to at least one time marker amongst the at

least one content (Eyer, col. 16, lines 45-58; Fig. 5).

27.   **As per claims 8 and 33**, the combination of Miller/Jaeger/Ma/Eyer discloses

said interleaving the schedule of content with other data further comprises:

transmitting the schedule amongst the at least one content at a determined

interval of time (Eyer, col. 16, lines 45-58; Fig. 5).

28.   **Claims 16, 22-25, 41, and 47-50 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Miller in view of Jaeger and Ma as applied to claim 1 above,

and further in view of Cho (U.S. Patent 6,081,402).

29.   **As per claims 16 and 41**, the combination of Miller/Jaeger/Ma discloses said

reading at least one content from the at least one hardware spatial data storage system

in a fashion independent of the schedule of content transmission further comprises:

reading a storage of a hard disk drive with a hard drive arm having a disk drive

head, said head is dedicated to at least one specific disk drive track (Jaeger, col. 5,

lines 49-52; col. 2, lines 41-45; Fig. 1, element 11).

The combination of Miller/Jaeger/Ma does not disclose a hard drive arm having

at least two disk drive heads.

Cho discloses a hard drive arm having at least two disk drive heads (col. 11,

lines 48-50; Fig. 13).

The combination of Miller/Jaeger/Ma and Cho are analogous art because they

are from the same field of endeavor, that being data transmission.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Cho's multi-arm-track-per-head disk drive within Miller/Jaeger/Ma's recording system because all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

30.   **As per claims 22 and 47**, the combination of Miller/Jaeger/Ma discloses said transmitting the at least one content to a temporal data storage system in accord with the published schedule further comprises:

receiving a portion of the at least one content from the hardware spatial data storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines 52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6, lines 1-26);

and transmitting the portion of the at least one content to the temporal data storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5, lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger/Ma does not disclose a delay-reclocking drive as claimed by Applicant.

Cho discloses a delay-reclocking drive with a head of a first arm and a head of a second arm (col. 11, lines 45-50; Fig. 13).

The combination of Miller/Jaeger and Cho are analogous art because they are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in the art to substitute Miller/Jaeger/Ma's buffer as Cho's multi-arm-track-per-head disk drive (i.e. delay-reclocking drive) in a manner such that receiving a portion of the at least one content from the hardware spatial data storage system with a delay-reclocking drive, writing the portion of the at least one content to the delay-reclocking drive with a head of a first arm of the delay-reclocking drive, and reading the portion of the at least one content from the delay-reclocking drive with a head of a second arm of the delay-reclocking drive, the head of the second arm of the delay-reclocking drive being on a same track as the head of the first arm are accomplished by the combination, because the simple substitution of one known element (RAM buffer) for another (disk drive) would have yielded the predictable results of a more durable long-term storage of data. Also, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded the predictable results of providing multiple accesses to data tracks simultaneously to satisfy simultaneous external service requests as well as totally eliminating track seek times.

31.   **As per claims 23 and 48**, the combination of Miller/Jaeger/Ma discloses said

transmitting the at least one content to a temporal data storage system in accord with

the published schedule further comprises:

receiving a portion of the at least one content from the hardware spatial data

storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines

52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6,

lines 1-26);

and transmitting the portion of the at least one content to the temporal data

storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5,

lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger/Ma does not disclose a delay-reclocking drive

as claimed by Applicant.

Cho discloses a delay-reclocking drive with a head of a first arm and a head of a

second arm (col. 11, lines 45-50; Fig. 13).

The combination of Miller/Jaeger/Ma and Cho are analogous art because they

are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in

the art to substitute Miller/Jaeger/Ma's buffer as Cho's multi-arm-track-per-head disk

drive (i.e. delay-reclocking drive) in a manner such that receiving a portion of the at

least one content from the hardware spatial data storage system with a delay-reclocking

drive; writing the portion of the at least one content to the delay-reclocking drive with a

head of a first arm of the delay-reclocking drive; reading the portion of the at least one

content from the delay-reclocking drive with a head of a second arm of the delay-

reclocking drive, the head of the second arm of the delay-reclocking drive being on a

different track than the head of the first arm are accomplished by the combination,

because the simple substitution of one known element (RAM buffer) for another (disk

drive) would have yielded the predictable results of a more durable long-term storage of

data. Also, all the claimed elements were known in the prior art and one skilled in the

art could have combined the elements as claimed by known methods with no change in

their respective functions, and the combination would have yielded the predictable

results of providing multiple accesses to data tracks simultaneously to satisfy

simultaneous external service requests as well as totally eliminating track seek times.

32.   **As per claims 24 and 49**, the combination of Miller/Jaeger/Ma discloses said

transmitting the at least one content to a temporal data storage system in accord with

the published schedule further comprises:

receiving a portion of the at least one content from the hardware spatial data

storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines

52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6,

lines 1-26);

and transmitting the portion of the at least one content to the temporal data

storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5,

lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger/Ma does not disclose a delay-reclocking drive

as claimed by Applicant.

Cho discloses a delay-reclocking drive with a first head of a first arm and a

second head of the first arm (col. 11, lines 48-50; Fig. 13).

The combination of Miller/Jaeger/Ma and Cho are analogous art because they

are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in

the art to substitute Miller/Jaeger/Ma's buffer as Cho's multi-arm-track-per-head disk

drive (i.e. delay-reclocking drive) in a manner such that a portion of the at least one

content from the hardware spatial data storage system with a delay-reclocking drive,

writing the portion of the at least one content to the delay-reclocking drive with a first

head of a first arm of the delay-reclocking drive, and reading the portion of the at least

one content from the delay-reclocking drive with a second head of the first arm of the

delay-reclocking drive are accomplished by the combination, because the simple

substitution of one known element (RAM buffer) for another (disk drive) would have

yielded the predictable results of a more durable long-term storage of data. Also, all the

claimed elements were known in the prior art and one skilled in the art could have

combined the elements as claimed by known methods with no change in their

respective functions, and the combination would have yielded the predictable results of

providing multiple accesses to data tracks simultaneously to satisfy simultaneous

external service requests as well as totally eliminating track seek times.

33.   **As per claims 25 and 50**, the combination of Miller/Jaeger/Ma discloses said

transmitting the at least one content to a temporal data storage system in accord with

the published schedule further comprises:

receiving a portion of the at least one content from the hardware spatial data

storage system with a buffer (Jaeger, col. 5, lines 52-58);

writing the portion of the at least one content to the buffer (Jaeger, col. 5, lines

52-58);

reading the portion of the at least one content from the buffer (Jaeger, col. 6,

lines 1-26);

and transmitting the portion of the at least one content to the temporal data

storage system (Miller, col. 3, lines 3-8; col. 13, lines 10-13; Fig. 3, element 116; col. 5,

lines 39-48; Fig. 1, elements 16, 18, 20; Fig. 2, element 46).

The combination of Miller/Jaeger/Ma does not disclose a delay-reclocking drive

as claimed by Applicant.

Cho discloses a delay-reclocking drive with a first head of a first arm and a

second head of the first arm (col. 11, lines 48-50; Fig. 13).

The combination of Miller/Jaeger/Ma and Cho are analogous art because they

are from the same field of endeavor, that being data transmission.

At the time of the invention it would have obvious to a person of ordinary skill in

the art to substitute Miller/Jaeger/Ma's buffer as Cho's multi-arm-track-per-head disk

drive (i.e. delay-reclocking drive) in a manner such that a portion of the at least one

content from the hardware spatial data storage system with a delay-reclocking drive,

writing the portion of the at least one content to the delay-reclocking drive with a first

head of a first arm of the delay-reclocking drive, and reading the portion of the at least

one content from the delay-reclocking drive with the first head of the first arm of the

delay-reclocking drive are accomplished by the combination, because the simple

substitution of one known element (RAM buffer) for another (disk drive) would have

yielded the predictable results of a more durable long-term storage of data. Also, all the

claimed elements were known in the prior art and one skilled in the art could have

combined the elements as claimed by known methods with no change in their

respective functions, and the combination would have yielded the predictable results of

providing multiple accesses to data tracks simultaneously to satisfy simultaneous

external service requests as well as totally eliminating track seek times.

Response to Arguments

34.   Applicant's arguments with respect to **claims 1-50** have been considered but are

moot in view of the new ground(s) of rejection above.

Conclusion

STATUS OF CLAIMS IN THE APPLICATION

The following is a summary of the treatment and status of all claims in the

application as recommended by MPEP 707.70(i):

CLAIMS REJECTED IN THE APPLICATION

Per the instant office action, **claims 1-50** have received an action on the merits and are subject of a final action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arpan P. Savla whose telephone number is (571) 272-1077. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Sanjiv Shah can be reached on (571) 272-4098. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arpan Savla/   /Sanjiv Shah/
Examiner, Art Unit 2185   Supervisory Patent Examiner, Art
September 30, 2009   Unit 2185